Claims

What is claimed is:

1. In an information handling system, a method for operating a first smart battery of a smart battery system, the smart battery system or an external power source being selected to provide electrical energy to at least one device of the information handling system, the method comprising:

initializing the first smart battery prior to the first smart battery being electrically coupled to the smart battery system, wherein the first smart battery includes a first smart electronics, a first charge switch and a first discharge switch, wherein the first smart electronics operates the first charge and discharge switches to jointly control an operating condition of the first smart battery in response to receiving a control input, wherein the control input is received from a controller of the at least one device, the controller being electrically coupled to the first smart electronics, wherein the initializing includes the first smart electronics opening the first charge and discharge switches;

closing the first charge and discharge switches in response to the first smart electronics and the controller being in agreement to charge the first smart battery;

opening the first charge switch in response to either the first smart electronics or the controller directing the first charge switch to be opened; and

opening the first discharge switch in response to either the first smart electronics or the controller directing the first discharge switch to be opened.

2. The method of claim 1, wherein the smart battery system includes a second smart battery, wherein the second smart battery includes a second smart electronics, a second charge switch and a second discharge switch, wherein the second smart electronics operates the second charge and discharge switches to jointly control an operating condition of the second smart battery in response to receiving the control input, the controller being electrically coupled to the second smart electronics.

3. The method of claim 2, comprising:

initializing the second smart battery prior to the second smart battery being electrically coupled to the smart battery system, wherein the initializing includes the second smart electronics opening the second charge and discharge switches;

closing the second charge and discharge switches in response to the second smart electronics and the controller being in agreement to charge the second smart battery;

opening the second charge switch in response to either the second smart electronics or the controller directing the second charge switch to be opened; and

opening the second discharge switch in response to either the second smart electronics or the controller directing the second discharge switch to be opened.

4. The method of claim 2, comprising:

switching the charge from the first smart battery to the second smart battery, wherein the switching includes:

opening the first charge switch while the first discharge switch remains closed;

closing the second discharge switch;

opening the first discharge switch; and

closing the second charge switch.

5. The method of claim 2, comprising:

switching the charge from the second smart battery to the first smart battery, wherein the switching includes:

opening the second charge switch while the second discharge switch remains closed;

closing the first discharge switch;

opening the second discharge switch; and

closing the first charge switch.

6. The method of claim 1, wherein the controller controls the selection of either the smart battery system or the external power source by controlling a battery power switch or a system power switch respectively.

7. The method of claim 6, wherein the system power switch is opened prior to a closing of the battery power switch in response to a removal of the external power source.

8. The method of claim 6, wherein the battery power switch is opened prior to a closing of the system power switch in response to receiving power from the external power source.

9. The method of claim 1, wherein the first and second smart electronics is electrically coupled to the controller by dedicated control lines.

10. The method of claim 1, wherein the first and second smart electronics is electrically coupled to the controller by a SMBus.

11. The method of claim 1, wherein the control input is generated by a BIOS program executing in the controller.

12. A power supply system for providing power to an information handling system device, the power supply system being connectable to an AC adapter for deriving power from an AC power source, the power supply system comprising:

a pair of smart batteries each capable of being individually selected to be operable, wherein each of the smart batteries includes:

a smart electronics,

a charge switch, and

a discharge switch,

wherein each of the smart electronics operates the corresponding charge and discharge switches to control an operating condition of the smart battery,

wherein each of the smart electronics is operable to receive a control input from a controller included in the information handling system device to jointly control the operating condition,

wherein the charge and discharge switches of each of the smart batteries are operable to be closed in response to the corresponding smart electronics and the controller being in agreement to charge the corresponding smart battery;

a battery charger operable to receive charge from the AC

adapter and provide the charge to a selected one of the smart batteries; and

a power source selector operable to select either the smart batteries or the AC power source to provide the power to the device.

13. The power supply system of claim 12, wherein the charge switch of each of the smart batteries is operable to be opened in response to either the corresponding smart electronics or the controller directing the charge switch to be opened.

14. The power supply system of claim 12, wherein the discharge switch of each of the smart batteries is operable to be opened in response to either the corresponding smart electronics or the controller directing the discharge switch to be opened.

15. The power supply system of claim 12, wherein each of the smart batteries is initialized prior to being operable to receive the control input, wherein the initialization includes the smart electronics opening the corresponding charge and discharge switches.

16. The power supply system of claim 12, wherein the controller controls the power source selector by selecting either the smart batteries or the AC power source in response to an availability of the power from the AC power source.

17. An information handling system comprising:

a processor;

a system bus;

a memory coupled to the processor through the system bus;

a power supply system operable to provide power to the processor, the bus and the memory, the power supply system being connectable to an AC adapter for deriving power from an AC power source;

a controller coupled to the processor and memory through the system bus, the controller operable to control the power supply system; and

wherein the power supply system includes:

a pair of smart batteries each capable of being individually selected to be operable, wherein each of the smart batteries includes:

a smart electronics,

a charge switch,

a discharge switch, and

a battery charger operable to receive charge from the AC adapter and provide the charge to a selected one of the smart batteries; and

a power source selector operable to select either the smart batteries or the AC power source.

18. The system of claim 17, wherein the charge switch of each of the smart batteries is operable to be opened in response to either the corresponding smart electronics or the controller directing the charge switch to be opened.

19. The system of claim 17, wherein the discharge switch of each of the smart batteries is operable to be opened in response to either the corresponding smart electronics or the controller directing the discharge switch to be opened.

20. The system of claim 17, wherein each of the smart batteries is initialized prior to being operable to receive the control input, wherein the initialization includes the smart electronics opening the corresponding charge and discharge switches.

21. The system of claim 17, wherein each of the smart electronics operates the corresponding charge and discharge switches to control an operating condition of the smart battery.

22. The system of claim 17, wherein each of the smart electronics is operable to receive a control input from the controller for jointly controlling the operating condition.

23. The system of claim 17, wherein the charge and discharge switches of each of the smart batteries are operable to be closed in response to the corresponding smart electronics and the controller being in agreement to charge the corresponding smart battery.